

Work Order ID 59582

Tuesday, June 08, 2010 11:30:53 AM



Page 1

Item ID: D135-751-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube Installation

Start Date: 6/8/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/17/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start

Approvals: Process Plan: H Date: 10-6-08 Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3507	Rev C
-------	-------

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D135-751-011

CHG001

510607/01

JG for BG 10/07/01

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Determine square end of tube and deburr

2-Drill #30 pilot holes using DT8678. Open holes to 0.3125".

3- Deburr holes.

DP

10-6-10

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

- 1- Bend tube as per program on CNC Bender and Dwg D3507. Use 5/16" locator pin on buggy "A".
2- Cut FWD END of tube as per dwg D3507

DP 10-6-10

W/O:		WORK ORDER CHANGES						
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Customer:

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Cut Aft end as per dwg D3507								
	2-Deburr ends								
	3-Drill Aft & Fwd Cap holes using DT8678 & DT8901								
	4-Locate DT8870 & Drill Ground wire hole on top of Tube.								
	6-Locate DT8870 with #30 cleco in Ground wire hole ,then Pilot Drill all X-Bolt holes using #30" drill. ****DO NOT OPEN AFT CAP HOLES****								
	7-Open crossbolt holes to 0.125" (3 per side). Drill pilot holes for wearplates using Dt8868,Use DT8892 FOR REAR WEARPLATE HOLES.								
	8-Open six rear wearplate holes using DT8892.Open holes to 0.297"								
	9- Drill holes section G-G (DT9431)								
	10-Open Aft & Fwd Cap holes using .208" drill.								
	11-Bore out aft end of tube as per Dwg D3507 & Detail "B".								
	12-Open ground wire hole .297" section E-E								
	13- Section G-G holes must be laid out manually, open to #30.								
	14-Deburr holes.								

10-6-14

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

8/10/06/14

④

150



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

1 M 10/6/15

160



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

②

10-06-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170



Skidtubes

Skidtubes

0.00

Skidtubes

Memo

0.00

1-Open X-Bolt holes to .375"(2Places) & .500"(2Places) as per Dwg D3507 and Detail "F"

2-Counter Sink X-BOLT holes as per Dwg D3507

3-Deburr and blow out chips from inside of tube.

4-Bond web as per Dwg D3507 & QSI 015

A/R 241 Sike Flex

Batch: 113519

Exp Date: 11/2010

5-Weld x-bolt (D3504-1/-3)spacers as per Dwg D3507 and Detail C-C & D-D.

A/R AL ROD

Batch: M114242

6-Grind welds flush

7-Drill Rivet Holes as per Dwg D3507 Using Dt8871A&B

8-Deburr Rivet holes.

11/10/6/15

start time: 1:30 PM 10-06-17 MB
end time: 8:00 AM 10-06-18 MB

B/E 10/06/21

J.E

AWM

10-06-22

W/O:		WORK ORDER CHANGES					
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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

190

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Rivet D3506-1/-3 as per Dwg D3507.

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Required Date: 6/17/2010 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

Pressure Wash per QSI005 4.3

0.00

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

W 10/06/28

1 0

220

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Powdercoat

Memo

0.00

Powder Coating

START TIME: 10:30
OVEN TEMPERATURE: 320°
FINISH TIME: 11:00

1 BK 10-6-29.

230

QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

810/07/01

(X)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

[illegible]

Page 8

Accept



Setup

Start

Stop

**Cust Item ID:**[illegible]

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run

Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Operation Description

Set Up/ Run Hours

Tool ID**Tool #****Plan
Code**

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

240

0.00

00000000000000000000

HandFinishing

HandFinish

Memo

0.00

Hand Finishing

Install Wearplate & Ground Wire inserts as per Dwg D3507.

250

QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

Inspect Inserts

810107101

(K)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Start Date: 6/8/2010 Start Qty: 1.00

Required Date: 6/17/2010 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

260



HandFinish

HandFinishing

0.00

Hand Finishing

Memo

0.00

1-Inspect for Foreign objects

2-Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"

A/R 241 Sika Flex Batch: 113519
Exp Date: 10/11

3-Install Wearplates as per Dwg D3507,

Note: Install (1) Bolt and (1) washer on Ground Wire insert on top of tube

Do not Install Scews where indicated on Dwg (Note #6)

A/R 241 Sika Flex Batch: 113519
Exp Date: 10/11

4-Install Plug assemblies with lubricate as per Dwg D3507.

Batch: 114189

5- Wing Walk as per Dwg D3507 and QSI 005 4.4

Batch: 114432

QC5- Inspect part completeness to step on W/O

0.00

270



QC

Quality Control

Memo

0.00

8107101

(41)

ml

10

06

30

(1)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Cust Item ID:

Customer:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

10-7-15

290

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

8067101

HL

300

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D135-751-011

Location: 3PPP Rev: 3

10-7-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Run

Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

310

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/07/01 *AD**U 10.07.01*

W/O:		WORK ORDER CHANGES					
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Picklist Print

Tuesday, June 08, 2010 11:30:58 AM

Page 1

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

D2962-150



3.540 Outer Tube, Extrut

Manufactured No 110 Each 31.0000 1 1

Location	Loc Qty	Loc Code
HALL	31	
28672	31	1
	Each	22.0000

D3504-1



Crossbolt Spacer

Manufactured No 170 Each 22.0000 2 2

Location	Loc Qty	Loc Code
LG	22	
31234	2	
53742	20	

D3504-3



Crossbolt Spacer

Manufactured No 170 Each 32.0000 1 1

Location	Loc Qty	Loc Code
LG	32	
31232	12	
53743	20	

D3504-5



Crossbolt Spacer

Manufactured No 170 Each 22.0000 2 2

Location	Loc Qty	Loc Code
LG	22	
36181	2	
53744	20	

10-6-9

BE 10/06/21

BE 10/06/21

BE 10/06/21

W/O:		WORK ORDER CHANGES					
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 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

D3505-1 Manufactured No 170 Each 0.0000



Web

D3506-1



Doubler

Manufactured No 190 Each 78.0000

Location

Loc Qty

Loc Code

ST066

78

51789

78

D3506-3

Manufactured No 190 Each 70.0000



Doubler

Location

Loc Qty

Loc Code

ST066

70

50563

4

51790

66

MS20601-AD4W3

Purchased No 190 Each 4,028.000



Rivet

Location

Loc Qty

Loc Code

ST321

4000

114538

4000

ST322

28

113899

28

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Shop Packet Print

Page 2

B-59884 MB 10-06-17

B 51789 AWM BE 10/06/21
 4 10-6-21

2 AWM 10-6-21

AWM 10-06-21

114538 (1)
 114538 (7)

BE 10/06/21

W/O:		WORK ORDER CHANGES					
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 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Start Qty: 1.00

Required Date: 6/17/2010

Required Qty: 1.00

ALS7-1032-130

Purchased No

240 Each

17.0000

38

38

Insert

B# 114723

Location

Loc Qty

Loc Code

ST282

17

113238

17

ALS4-1032-225

Purchased No

260 Each

6,948.000

1

1

Insert

Location

Loc Qty

Loc Code

PK011

6948

110768

6948

AN3C4A

Purchased No

260 Each

1,525.000

31

31

BOLT

Location

Loc Qty

Loc Code

ST350

1525

114103

501

114108

14

114416

12

114523

2

114859

996

MA 10.06.30

MA 10.06.30

MA 10.06.30

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Shop Packet Print

Page 3

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 4

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

AN3C5A



Bolt

Purchased No 260 Each 726.0000 2 2

Location	Loc Qty	Loc Code
ST350	711	
114330	11	
114523	200	
114808	500	
ST351	15	
113121	10	
114108	5	

10-06-30

AN526C1032R10



Screw

Purchased No 260 Each 486.0000 2 2

Location	Loc Qty	Loc Code
ST327	100	
114494	100	
ST328	386	
108062	130	
110049	256	

10-06-30

AN960C10L

NAS1149C0332

Purchased No

260 Each 0.0000 33 33



washer

B# 115000

10-06-30

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 5

Work Order ID: 59582



Parent Item: D135-751-011



Parent Item Name: Skidtube Installation

Comments:

IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

D2965



Manufactured No

260 Each

49.0000

1

1

Cap, 105 Skidtube



Location

Loc Qty

Loc Code

FP4

49

52057

49

mt 10-06-30

D2965-3



Manufactured No

260 Each

9.0000

1

1

Cap



Location

Loc Qty

Loc Code

FP

9

50560

3

52282

6

mt 10-06-30

D3492-041



Manufactured No

260 Each

70.0000

4

4

Plug Assembly



Location

Loc Qty

Loc Code

FP013

70

57915

6

58180

60

59189

4

mt 10-06-30

B# 59114

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Page 6

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A 06-06-21 New Issue JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Start Qty: 1.00

Required Date: 6/17/2010

Required Qty: 1.00

D3492-043



Manufactured No

260

Each

33.0000

4

4

Plug Assembly

B# 59421

Location

Loc Qty

Loc Code

FP

2

54682

2

FP013

31

57916

27

59190

4

260

Each

41.0000

2

2

MA 10-06-30

D3492-047



Manufactured No

260

Each

41.0000

2

2

Plug Assembly

Location

Loc Qty

Loc Code

FP

41

28961

26

39722

15

260

Each

6.0000

1

1

MA 10-06-30

D3508-1



Manufactured No

260

Each

6.0000

1

1

Wearplate

Location

Loc Qty

Loc Code

FP

6

51261

6

260

Each

7.0000

1

1

MA 10-06-30

D3508-3



Manufactured No

260

Each

7.0000

1

1

Wearplate

Location

Loc Qty

Loc Code

FP21

7

51386

1

55339

6

MA 10-06-30

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Page 7

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
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 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

D3508-5 Manufactured No 260 Each 6.0000 1 1



Wearplate

Location Loc Qty Loc Code

FP21 6

51388 6

D3508-7 Manufactured No 260 Each 4.0000 1 1



Wearplate

Location Loc Qty Loc Code

FP21 4

51389 4

D3558-1 Manufactured No 260 Each 17.0000 1 1



Gasket

Location Loc Qty Loc Code

FP 17

50925 17

D3558-3 Manufactured No 260 Each 18.0000 1 1



Gasket

Location Loc Qty Loc Code

FP 18

51391 6

55468 12

MM 10-06-30

MM 10-06-30

MM 10-06-30

MM 10-06-30

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Page 8

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Start Qty: 1.00

Required Date: 6/17/2010

Required Qty: 1.00

D3558-5



Gasket

Manufactured No

260 Each

7.0000

1

1

Location

Loc Qty

Loc Code

FP

7

50926

7

D3558-7



Gasket

Manufactured No

260 Each

13.0000

1

1

Location

Loc Qty

Loc Code

FP

13

43245

5

50927

8

NAS1611-007



O-RING

Purchased No

260 Each

444.0000

2

2

Location

Loc Qty

Loc Code

FP

444

103697

444

NAS1611-010



O-RING

Purchased No

260 Each

302.0000

4

4

Location

Loc Qty

Loc Code

FP

302

110715

100

110915

202

mm 10-06-30

mm 10-06-30

mm 10-06-30

mm 10-06-30

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Picklist Print

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Page 9

Work Order ID: 59582

Parent Item: D135-751-011

Parent Item Name: Skidtube Installation

Comments: IPP Rev:A ☐ 06-06-21 ☐ New Issue ☐ JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD

Start Date: 6/8/2010

Required Date: 6/17/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013



O-RING

Purchased No 260 Each 195.0000 4 4

Location Loc Qty Loc Code

FP 195

114451 157

114496 38

AN3C4A



BOLT

Purchased No 280 Each 1,525.000 31 8

Location Loc Qty Loc Code

ST350 1525

114103 501

114108 14

114416 12

114523 2

114859 996

AN960C10L

NAS1149C0332
R



washer

D3512-1



Wearplate

Purchased No 280 Each 0.0000 33 8

Manufactured No 280 Each 13.0000 2 2

Location Loc Qty Loc Code

ST500 13

54452 1

55466 12

MM 10.06.30
10-7-15

1115000 10.7.15

Tuesday, June 08, 2010 11:30:59 AM

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY

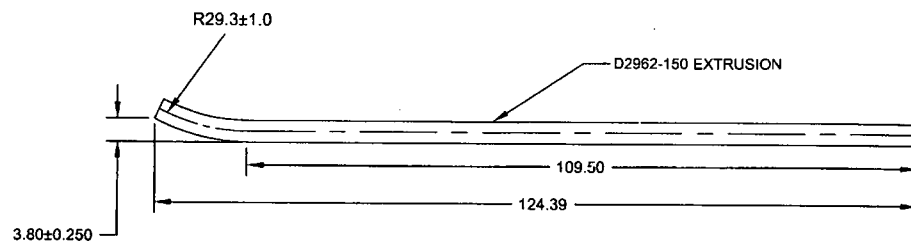
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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 59582
BS 10-6-08

Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2965	CAP
1	D2965-3	CAP
4	D3492-041	PLUG ASSEMBLY
4	D3492-043	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
2	D3504-5	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
1	D3558-1	GASKET
1	D3558-3	GASKET
1	D3558-5	GASKET
1	D3558-7	GASKET
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
31	AN3C4A	BOLT
2	AN3C5A	BOLT
2	AN526C1032-10	SCREW
33	AN960C10L	WASHER
12	MS20601AD4W3	RIVET

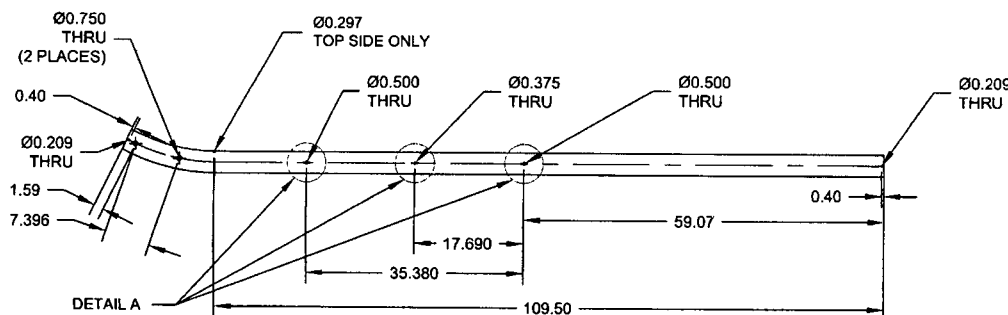
GENERAL NOTES:

- 1) FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING
D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART
QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER
DART QSI 005 4.4
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- 4) WELDING TO BE DONE PER DART QSI 004
- 5) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND
WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER
DART QSI 015 AFTER BENDING
- 6) USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (38
PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38
PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- 7) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED
LOCATIONS

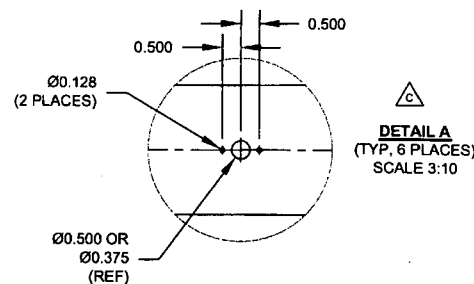
C	ADD D3504-5, FOR SKID GEAR DEFLECTOR; CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW	DC	07.09.19
B	ADD GASKET, CHANGE HARDWARE MATL	PH	06.11.01
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	JIC		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH		
DATE	07.09.19		
DART AEROSPACE USA, INC PORT HADLOCK, WA DRAWING NO. D3507 REV. C SHEET 1 OF 2 TITLE EC 135 SKIDTUBE SCALE NTS COPYRIGHT © 2006 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>			



D3507-1 BENDING/CUTTING DETAIL



D3507-1 DRILLING DETAIL



RELEASED
07.11.16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

5.0 PARTS LIST

Item	Qty -011	Qty -041	Qty -043	Qty -101	Part Number	Description
	X				D135-751-011	SKIDTUBE INSTALLATION
	1	X			D135-751-041	REPLACEMENT SKIDTUBE
			X		D135-751-043	WEARPLATE KIT
				X	D135-751-101	SKIDTUBE EXTENSION KIT
1		1			D3507-041	SKIDTUBE ASSEMBLY
2	4				**BRS8-96/48SZ-M8-W2	CLAMP
3	8				**LN9038-08032	SCREW
4		1			*D2965	CAP
5		1			*D2965-3	CAP
6		2			***AELS-1032-130	INSERT
7		2			***AELS-1032-225	INSERT
8		2			*AN3C5A	BOLT
9		2			*AN960C10L	WASHER
10		2			*AN526C1032-10	SCREW
20A		1	1		*D3508-1	WEARPLATE
20B		1	1		*D3558-1	GASKET
21A		1	1		*D3508-3	WEARPLATE
21B		1	1		*D3558-3	GASKET
22A		1	1		*D3508-5	WEARPLATE
22B		1	1		*D3558-5	GASKET
23A		1	1		*D3508-7	WEARPLATE
23B		1	1		*D3558-7	GASKET
24		38			*AELS-1032-130	INSERT
25	8	30	38		*AN3C4A	BOLT
26	8	30	38		*AN960C10L	WASHER
27	2		2		D3512-1	WEARPLATE
30		1			*AELS-1032-225	INSERT
31		1			*AN3C4A	BOLT
32		1			*AN960C10L	WASHER
40		4			*D3492-041	PLUG ASSEMBLY
41		4			***NAS1611-010	O-RING
42		2			*D3492-047	PLUG ASSEMBLY
43		2			***NAS1611-007	O-RING
44		4			*D3506-1	DOUBLER
45		8			*MS20601AD4W3	RIVET
46		2			*D3506-3	DOUBLER
47		4			*MS20601AD4W3	RIVET
48		4			*D3492-043	PLUG ASSEMBLY
49		4			***NAS1611-013	O-RING
50				1	D3510-041	INSERT ASSEMBLY
51				2	***AELS-1032-130	INSERT
52				6	***AELS-1032-225	INSERT
53				2	***ALS4-428-165	INSERT
54				2	AN4C7A	BOLT
55				2	AN960C416L	WASHER
56				2	AN3C4A	BOLT
57				8	AN3C7A	BOLT
58				10	AN960C10L	WASHER

* PART IS INCLUDED WITH D3507-041 SKIDTUBE ASSEMBLY
 ** TO BE SUPPLIED BY CUSTOMER, LISTED AS REFERENCE ONLY
 *** DENOTES PART IS INCLUDED WITH ASSEMBLY ABOVE

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 204

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 505370
Part number: D135 751 011
Description: Skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier J. D. D. Date of Test Coupon 09-07-16

Welder Barclay Elliott Date of Test Coupon 09/07/16

The above named individual is qualified in accordance with AWS D17.1.2001 to weld